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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,302	07/31/2001	John David Sarlay	IEX 2051000	2503

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EXAMINER

STIMPAK, JOHNNA

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,302

Applicant(s)

SARLAY ET AL.

Examiner

Johnna R Stimpak

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on February 2, 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a Final Office Action upon examination of application number 09/919,302. Claims 37-51 are pending and have been examined on the merits discussed below.

Response to Arguments

2. Applicant's arguments, see pages 5-9, filed February 2, 2004, with respect to the rejection(s) of claim(s) 1-36 under 35 U.S.C. 102(b) and 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration of the newly added claims, a new ground(s) of rejection is made in view of Pipkins' Maxima Advantage incorporating Mustang Reports TM.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 37-51** are rejected under 35 U.S.C. 103(a) as being unpatentable by Pipkins' Maxima Advantage incorporating Mustang Reports TM, hereinafter referred to as Pipkins. Applicant is reminded that the following rejection is based on the product of Pipkins. The following references discuss the following aspects of the Pipkins email management system:

"Mustang.com and Pipkins Join Forces In eService Workforce Management" –

December 23, 1999 from Proquest. Reference paragraphs 1-10.

“Pipkins Teams with Mustang.com to Enable Call Center Agents to Integrate Phone Call and Email Functions” – March 16, 2000 from Proquest. Reference paragraphs 11-19.

As per **claim 37**, Pipkins teaches (a) identifying a given service level goal for a given future time period within the given future time range of the forecast, the service level goal describing a maximum amount of time that may occur between receipt of a given contact and handling of the given contact, wherein the given contact comprises a part of the contact load expected to occur during the given future time period (paragraph 1 – service level goals are set and the email customer service workforce is scheduled to meet the goals); (b) for the given future time period of the forecast, using the given service level goal identified for that given future time period to identify a number of time periods over which the contact load in that given future time period may be distributed (paragraph 2 – forecasting is used to predict e-mail customer representative staffing requirements) and Pipkins also inherently teaches the steps being performed on an electronic processor since the Pipkins and Mustang systems are computer based. Pipkins teaches scheduling the workforce based on forecasts of email, but does not explicitly teach (c) for the given future time of the forecast, applying a given function to the contact load to distribute the contact load for the given future time period over a given set of the identified number of time periods. Since Pipkins teaches forecasting email over time and scheduling workforce to meet the email demands it would have been obvious to use a function to distribute the email over a time span so the workforce could meet the service goals. This would make for a quicker email response system wherein service goals could be met efficiently.

As per **claim 38**, Pipkins teaches the contacts that are not required to be serviced by contact center agents in real-time include at least one electronic communication (paragraph 1 teaches contacts to be serviced include electronic mail – which inherently, unlike telephone calls, do not have to be responded to in real-time).

As per **claim 39**, Pipkins teaches the contacts that are not required to be serviced by contact center agents in real-time include at least one written communication (paragraph 1 teaches contacts to be serviced include electronic mail – which inherently include a written communication and, unlike telephone calls, do not have to be responded to in real-time).

As per **claim 40**, Pipkins teaches the given function is based on one or more factors selected from a set of factors including: a number of contact center agents expected to be available to service the contacts during the given set of identified number of time periods, an amount of time that a contact center agent may allocate to service contacts, an amount of excess capacity that a contact center agent has available, a backlog goal, an agent average handling time, and agent schedule adherence (paragraph 7 – balancing the burden of work to be completed with the resources available to complete that work, paragraph 15 – average handling time is used to staff the email reponses).

As per **claim 41**, Pipkins teaches generating a staffing requirement for the given future time period (paragraph 2 – forecasting is used to predict e-mail customer representative staffing requirements).

As per **claim 42**, Pipkins does not explicitly teach including the step of repeating steps (a) – (c) on an iterative basis for additional given future time periods within the given future time range to distribute the contact load for each additional given future time period. However,

Art Unit: 3623

Pipkins teaches an optimization algorithm to forecast and schedule the workforce agents and it is well known to one of ordinary skill in the art that an scheduling optimization algorithm includes many iterations to come up with the optimal solution. The iterations would make the scheduling process be most efficient.

As per **claim 43**, Pipkins teaches aggregating, with respect to a given future time period, the contact load that has been distributed into that given future time period as a result of applying, on an iterative basis, the given function in steps (a) – (c) (paragraph 15 – the system allows for staffing email response handling more efficiently by knowing the number of emails coming in and the average handling time so that the staffing can be optimized to meet service levels).

As per **claim 44**, Pipkins teaches generating a staffing requirement for the given future time period as a function of the aggregate contact load that has been distributed into that given future time period (paragraph 15 – the system allows for staffing email response handling more efficiently by knowing the number of emails coming in and the average handling time so that the staffing can be optimized to meet service levels).

As per **claim 45**, Pipkins teaches generating a staffing requirement for the given future time period as a function of the aggregate contact load that has been distributed into that given future time period and an agent average handling time that has been forecast for that given future time period (paragraph 15 – the system allows for staffing email response handling more efficiently by knowing the number of emails coming in and the average handling time so that the staffing can be optimized to meet service levels).

As per **claim 46**, teaches (a) identifying a given service level goal for a given future time period within the given future time range of the forecast, the service level goal describing a maximum amount of time that may occur between receipt of a given contact and handling of the given contact, wherein the given contact comprises a part of the contact load expected to occur during the given future time period (paragraph 1 – service level goals are set and the email customer service workforce is scheduled to meet the goals); (b) for the given future time period of the forecast, using the given service level goal identified for that given future time period to identify a number of time periods over which the contact load in that given future time period may be distributed (paragraph 2 – forecasting is used to predict e-mail customer representative staffing requirements); and (e) Pipkins also inherently teaches the steps being performed on an electronic processor since the Pipkins and Mustang systems are computer based. Pipkins teaches scheduling the workforce based on forecasts of email, but does not explicitly teach (c) for the given future time of the forecast, applying a given function to the contact load to distribute the contact load for the given future time period over a given set of the identified number of time periods. Since Pipkins teaches forecasting email over time and scheduling workforce to meet the email demands it would have been obvious to use a function to distribute the email over a time span so the workforce could meet the service goals. This would make for a quicker email response system wherein service goals could be met efficiently. Pipkins also does not explicitly teach (d) including the step of repeating steps (a) – (c) on an iterative basis for additional given future time periods within the given future time range to distribute the contact load for each additional given future time period. However, Pipkins teaches an optimization algorithm to forecast and schedule the workforce agents and it is well known to one of ordinary

Art Unit: 3623

skill in the art that an scheduling optimization algorithm includes many iterations to come up with the optimal solution. The iterations would make the scheduling process be most efficient.

As per **claim 47**, Pipkins teaches (f) generating a staffing requirement for the given future time period as a function of the aggregate contact load that has been distributed into that given future time period and an agent average handling time that has been forecast for that given future time period (paragraph 15 – the system allows for staffing email response handling more efficiently by knowing the number of emails coming in and the average handling time so that the staffing can be optimized to meet service levels).

As per **claim 48**, Pipkins teaches the contacts that are not required to be serviced by contact center agents in real-time include contacts selected from a set of contacts that include: electronic communications and written communications (paragraph 1 teaches contacts to be serviced include electronic mail – which inherently include a written communication and, unlike telephone calls, do not have to be responded to in real-time).

As per **claim 49**, Pipkins teaches wherein the electronic communications include at least one e-mail (paragraph 1 teaches contacts to be serviced include electronic mail – which inherently include a written communication and, unlike telephone calls, do not have to be responded to in real-time).

As per **claim 50**, Pipkins does not explicitly teach the electronic communications include at least one fax. Pipkins does teach scheduling workforce to handle electronic mail responses. It is old and well known to one of ordinary skill in the art that many email systems have faxing capabilities, therefore it would have been obvious to include faxes in the electronic

Art Unit: 3623

communications to be distributed among the workforce to be sure each gets responded to in the most efficient manner.

As per **claim 51**, Pipkins teaches the apparatus with code executable on a processor to perform the method of claim 46, therefore the since the references applied to claim 46 teaches a computerized system to perform the method, the same rejection as applied to claim 46 is also applied to claim 51.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hollman, Lee. "Keeping on schedule with workforce management software", Call Center Magazine, San Francisco: April 2001, Vol. 14, Iss. 4 – from Proquest

"Workforce Management Software Roundup", April 2001 – www.tmcnet.com - customer interaction solutions

US 5,185,780 – Leggett – method for predicting agent requirements in a force management system.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnna R Stimpak whose telephone number is 703-305-4566. The examiner can normally be reached on M-F 8am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 703-305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Js
4-19-2001

Romain Jeanty
Primary Examiner
Art Unit 3623